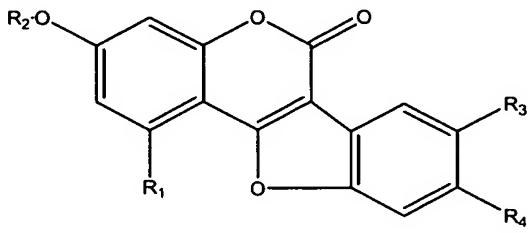
What is claimed:

1. A use of the coumestans compound of formula I or pharmaceutically acceptable salts thereof, or an extract containing the coumestans compound of formula I or pharmaceutically acceptable salts thereof in the manufacture of a medicament for the treatment or prevention of arthritis



I

wherein

R_1 represents H, OH, or methoxyl;

R_2 represents H, OH, or C_1-C_8 alkyl;

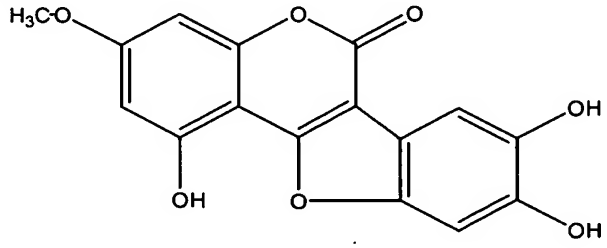
R_3 and R_4 are each independently selected from the group consisting of H, halogen, OH, and methoxyl.

2. The use of claim 1, wherein the pharmaceutically acceptable salt of the compound of formula I are formed with the acids selected from the group consisting of chlorhydric acid, hydrobromic acid, sulfuric acid, citric acid, tartaric acid, phosphoric acid, lactic acid, pyruvic acid, acetic acid, succinic acid, oxalic acid, fumaric acid, maleic acid, ketosuccinic acid, methane-sulfonic acid, ethyl-sulfonic acid, benzene sulfonic acid, and isethionic acid.

3. The use of claim 1, wherein the compound of formula I or the extract is extracted from the plant *Compositae*.

4. The use of claim 3, wherein the plant *Compositae* is selected from *Eclipta prostrata Linn*, *Wedelia chinensis*, and *Eclipta alba*.

5. The use of claim 1, wherein said compound of formula I is wedelolactone as shown in formula II:



II

6. The use of claim 1, wherein the arthritis is selected from the group consisting of rheumatic arthritis, rheumatoid arthritis, and osteoarthritis.

7. The use of claim 1, wherein the compound of formula I is produced by a extraction method comprising the steps of:

(a) extracting the fruits, leaves, or branches of the *Compositae* plant with 95±3% ethanol, thereby producing ethanol extract;

(b) dissolving the above ethanol extract in 5-300 volumes of H_2O at 50-80°C, filtering to remove the precipitates and collecting the H_2O phase;

(c) extracting the H_2O phase in step (b) with acetic ester and collecting the acetic ester phase;

(d) concentrating and drying the acetic ester phase in step (c) to produce the precipitates;

(e) eluting the precipitates in (d) on a silica gel column with a 5:1 to 1:2 gradient of petroleum ether/acetone mixture and collecting the fraction eluted with 1:1 petroleum ether/acetone;

(f) concentrating the fraction eluted in step (e) to produce concentrated residue;

(g) eluting the concentrated residue in step (f) on a silica gel column with a 5:1 to 1:2 gradient of dichloromethane/acetone mixture and collecting the fraction eluted with 3:1 dichloromethane/acetone;

(h) eluting the fraction eluted in step (g) on a silica gel column with a 20:10:1 to 5:10:1 gradient of toluene-acetone-formate mixture and collecting the fraction eluted with 10:10:1 toluene-acetone-formate;

(i) eluting the fraction eluted in step (h) on a silica gel column with a 30:1 to 1:1 gradient of dichloromethane/methanol mixture and collecting the fraction eluted with 20:1 dichloromethane/methanol; and

(j) recrystallizing the fraction eluted in step (i) with ethanol, thereby producing the coumestans compounds of formula I as precipitates.

8. A method for producing coumestans, comprising the steps of:

(a) extracting the fruits, leaves, or branches of the *Compositae* plant with 95±3% ethanol, thereby producing ethanol extract;

(b) dissolving the above ethanol extract in 5-300 volumes of H_2O at 50-80°C, filtering to remove the precipitates and collecting the H_2O phase;

(c) extracting the H_2O phase in step (b) with acetic ester and collecting the acetic ester phase;

(d) concentrating and drying the acetic ester phase in step (c) to produce the precipitates;

(e) eluting the precipitates in (d) on a silica gel column with a 5:1 to 1:2 gradient of petroleum ether/acetone mixture and collecting the fraction eluted with 1:1 petroleum ether/acetone;

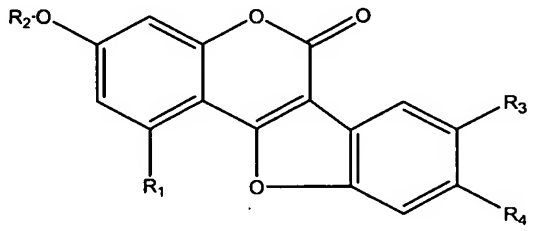
(f) concentrating the fraction eluted in step (e) to produce concentrated residue;

(g) eluting the concentrated residue in step (f) on a silica gel column with a 5:1 to 1:2 gradient of dichloromethane/acetone mixture and collecting the fraction eluted with 3:1 dichloromethane/acetone;

(h) eluting the fraction eluted in step (g) on a silica gel column with a 20:10:1 to 5:10:1 gradient of toluene-acetone-formate mixture and collecting the fraction eluted with 10:10:1 toluene-acetone-formate;

(i) eluting the fraction eluted in step (h) on a silica gel column with a 30:1 to 1:1 gradient of dichloromethane/methanol mixture and collecting the fraction eluted with 20:1 dichloromethane/methanol; and

(j) recrystallizing the fraction eluted in step (i) with ethanol, thereby producing the coumestans compounds of formula I as precipitates



I

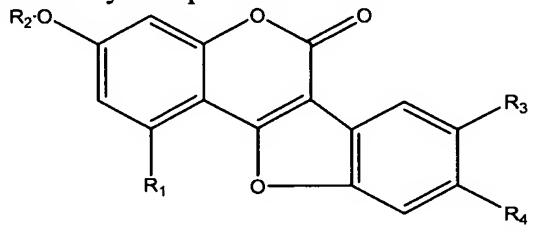
wherein,

R_1 represents H, OH, or methoxyl;

R_2 represents H, OH, or C_1-C_8 alkyl;

R_3 and R_4 are each independently selected from the group consisting of H, halogen, OH, and methoxyl.

9. A dietary supplement comprising 0.05-50wt% of the compound of formual I, or the pharmaceutically acceptable salts thereof:



I

wherein

R_1 represents H, OH, or methoxyl;

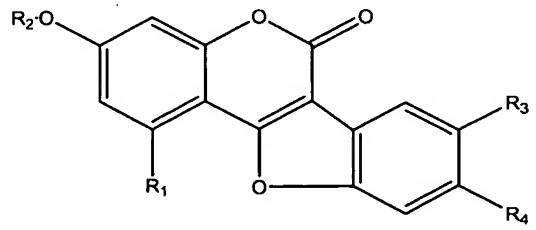
R_2 represents H, OH, or C_1-C_8 alkyl;

R_3 and R_4 are each independently selected from the group consisting of H, halogen, OH, and methoxyl;

and a bromatologically acceptable carrier.

10. A pharmaceutical composition for treating arthritis, comprising:

(a) 0.05-90wt% compound of formula I or pharmaceutically acceptable salts thereof, or extracts containing the coumestans compound of formula I or pharmaceutically acceptable salts thereof , as the main active ingredient,



I

wherein

R_1 represents H, OH, or methoxyl; and

R_2 represents H, OH, or C_1-C_8 alkyl;

R_3 and R_4 are each independently selected from the group consisting of H, halogen, OH, and methoxyl; and

(b) one or more active ingredients selected from the group consisting of: acemetacin, diclofenac, ibuprofen, indomethacin, meloxicam, ketoprofen, sulindac, auranofin, naproxen, nabumetone, piroxicam, mecolfenamic acid, chlofenamic acid, mefenamic acid, pirprofen, fenbufen, tolmetin, flufenamide acid, methocarbamol, nimesulide, celecoxib, rofecoxib, aceclofenac methotrexate, gold salts, salazosulfadimidine, penicillamine, chloroquine, tripterygium wilfordii, ciclosporin, cyclophosphamide, and glococorticoids; and

(c) a pharmaceutically acceptable carrier.